

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A shock-resistant system for operatively interconnecting modules within a computer system to enable data to be transmitted and received therebetween comprising:

a. a first module having a first media access control logic circuit for transmitting and receiving data substantially conforming to a standardized infrared communications scheme protocol;

b. a second module having a second media access control logic circuit for transmitting and receiving data substantially conforming to said standardized infrared communications scheme protocol utilized by said first module; and

c. a single hardwired electrical conductor signal path connecting said first and second modules to facilitate electrical bi-directional communications between said first and second media access control logic circuit only through said hardwired electrical conductor signal path;

wherein said system comprises a multiplicity of modules, wherein each respective one of said multiplicity of modules comprises at least one dedicated transmitter element and receiver element within said module, each respective one of said multiplicity of modules being electrically interfaced to one another via said transmitter and receiver elements such that said modules are operative to transmit and receive data therebetween.

2. (Original) The system of Claim 1 wherein said infrared communications scheme protocol comprises a protocol developed by the Infrared Data Association.

3. (Original) The system of Claim 1 wherein said first and second modules are housed within an enclosure.

4. (Original) The system of Claim 1 wherein said first and second modules are operative to run an embedded application.

5. (Cancelled)

7. (Currently Amended) A method for operatively interconnecting modules within a computer to enable data to be transmitted and received therebetween comprising:

a. providing a first module having a first media access control logic circuit including at least one dedicated transmitter and receiver element for transmitting and receiving data substantially conforming to a standardized infrared communications scheme protocol;

b. providing a second module having a second media access control logic circuit including at least one dedicated transmitter and receiver element for transmitting and receiving data substantially conforming to a standardized infrared communications scheme protocol;

c. forming a single hardwired electrical conductor signal path solely connecting the first and second media access control logic circuits[[,]] such that the first and second modules are interfaced to each other via the at least one transmitter and receiver elements, allowing the first and second modules to transmit and receive data therebetween; and

d. communicating electrically between the first and second modules only through said single hardwired electrical conductor signal path bi-directionally using the standardized infrared communications scheme protocol.

11 8. (Original) The method of Claim ~~8~~ wherein in steps a) and b), said infrared communications scheme protocol comprises a protocol developed by the Infrared Data Association.

9 8. (Original) The method of Claim 8 wherein in steps a) and b), said first and second modules are housed within an enclosure.

10 9. (Previously Presented) The method of Claim 8 wherein in step c), said first and second modules are operatively coupled to run an embedded application.

5 10. (Previously Presented) The system of Claim 1 wherein said modules comprise of at least one of an individual circuit board and a daughter card.

11. (Cancelled)

12. (New) A vibration-resistant system for interconnecting modules within a computer system enabling data to be reliably transmitted and received therebetween comprising:

- a. a first module having a first media access control logic circuit including a dedicated transmitter and receiver element for transmitting and receiving data conforming to a standardized infrared communications scheme protocol;
- b. a second module having a second media access control logic circuit including a dedicated transmitter and receiver element for transmitting and receiving data conforming to the standardized infrared communications scheme protocol utilized by the first module; and
- c. a single hardwired electrical conductor signal path connecting the first and second modules to facilitate electrical bi-directional communications between the first and second media access control logic circuits, wherein the first and second modules are interfaced to each other via respective transmitter and receiver elements such that the first and second modules are operative to transmit and receive data therebetween through the single hardwired electrical conductor signal path.

13. (New) The system of Claim 12 wherein the infrared communications scheme protocol comprises a protocol developed by the Infrared Data Association.

14. (New) The system of Claim 12 wherein the first and second modules are housed within an enclosure.

15. (New) The system of Claim 12 wherein the first and second modules are operative to run an embedded application.

16. (New) A vibration-resistant system for interconnecting modules within a computer system enabling data to be reliably transmitted and received therebetween comprising:

- a. a first module having a first media access control logic circuit including a plurality of pairs of transmitter and receiver elements for transmitting and receiving data conforming to a standardized infrared communications scheme protocol;
- b. a second module having a second media access control logic circuit including a plurality of pairs of transmitter and receiver elements for transmitting and receiving data conforming to the standardized infrared communications scheme protocol utilized by the first module; and

c. a plurality of hardwired electrical conductor signal paths connecting the first and second modules, each hardwired signal path interfaced between respective pairs of transmitter and receiver elements from the first and second modules to facilitate electrical bi-directional communications between the first and second media access control logic circuits;

wherein the plurality of hardwired electrical conductor signal paths and respective pairs of transmitter and receiver elements from the first and second modules provide a plurality of redundant data links between the first and second modules such that the modules are operative to transmit and receive data therebetween when a failure occurs in one of the plurality of redundant data links.

17. (New) A method for interconnecting modules within a computer in a redundant manner enabling data to be reliably transmitted and received therebetween comprising:

a. providing a first module having a first media access control logic circuit including a plurality of pairs of transmitter and receiver elements for transmitting and receiving data conforming to a standardized infrared communications scheme protocol;

b. providing a second module having a second media access control logic circuit including a plurality of pairs of transmitter and receiver elements for transmitting and receiving data conforming to the standardized infrared communications scheme protocol utilized by the first module;

c. providing a plurality of hardwired electrical conductor signal paths connecting the first and second modules, each hardwired signal path interfaced between respective pairs of transmitter and receiver elements from the first and second modules to facilitate electrical bi-directional communications between the first and second media access control logic circuit; and

d. communicating electrically between the first and second modules through one of the plurality of hardwired electrical conductor signal paths bi-directionally using the standardized infrared communications scheme protocol;

wherein the plurality of hardwired electrical conductor signal paths and respective pairs of transmitter and receiver elements from the first and second

modules provide a plurality of redundant data links between the first and second modules such that the modules are operative to transmit and receive data therebetween when a failure occurs in one of the plurality of redundant data links.

18. (New) The system of Claim 1 wherein the at least one transmitter element comprises a tri-stateable digital transmitter and the at least one receiver element comprises a tri-stateable digital receiver.

19. (New) The method of Claim 6 wherein the at least one transmitter element comprises a tri-stateable digital transmitter and the at least one receiver element comprises a tri-stateable digital receiver.

20. (New) The system of Claim 12 wherein the transmitter elements comprise tri-stateable digital transmitters and the receiver elements comprise tri-stateable digital receivers.

21. (New) The system of Claim 16 wherein the transmitter elements comprise tri-stateable digital transmitters and the receiver elements comprise tri-stateable digital receivers.

22. (New) The method of Claim 17 wherein the transmitter elements comprise tri-stateable digital transmitters and the receiver elements comprise tri-stateable digital receivers.